



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/905,340

07/14/2001

Myles Jordan

655/62435

3753

5073

7590

06/29/2006

BAKER BOTTS L.L.P.

2001 ROSS AVENUE

SUITE 600

DALLAS, TX 75201-2980

EXAMINER

CALLAHAN, PAUL E

ART UNIT

PAPER NUMBER

2137

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 09/905,340 | Applicant(s) JORDAN | |
| | Examiner Paul, Callahan | Art Unit 2137 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5-7, 20 and 21 is/are allowed.
- 6) ☐ Claim(s) 8-12 is/are rejected.
- 7) ☐ Claim(s) 13-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6-12-06 has been entered.

2. Claims 1-21 were pending at the time of the previous Office Action. Claim 4 has been cancelled by the amendment filed with the RCE on 12-16-06. Therefore 1-3 and 5-21 remain pending and have been examined.

Response to Arguments

3. Applicant's arguments filed 6-12-06 have been fully considered but they are not persuasive. The applicant argues in traverse of the Nachenberg reference by asserting that it fails to teach a modification to memory that is the installation of a viral interrupt handler. The Examiner maintains that Nachenberg does indeed teach this feature (col. 8 lines 25-67, col. 9 lines 24-32).

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Claim is directed towards a “computer data signal embodied in a transmission medium...” The transmission medium is not further limited to any physical type of memory and therefore a reasonably broad reading of the claim language must include a transmission medium that is purely electromagnetic. Therefore the claim is directed towards non-statutory subject matter since an electromagnetic data signal falls outside of any of the four statutory classes of invention that are eligible for the grant of a US Patent, namely; a process, a machine, a manufacture or a composition of matter

As per the “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” United States Patent and Trademark Office Official Gazette Notices 22 November 2005:

“While abstract ideas, natural phenomena, and laws of nature are not eligible for patenting, methods and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be. In evaluating whether a claim meets the requirements of section 101, the claim must be considered as a whole to determine whether it is for a particular application of an abstract idea, natural phenomenon, or law of nature, rather than for the abstract idea, natural phenomenon, or law of nature itself.”

The Interim guidelines direct the examiner to determine if the claim may be considered as a practical application of non-statutory subject matter, i.e., practical applications of these judicial exceptions. A two-part test is set forth where such a practical application may be found by virtue of the claim reciting limitations directed towards a practical application by virtue of physically transforming an article or physical object to a different state or thing, or if the claimed invention otherwise produces a useful, concrete and tangible result. Claim 10 fails in each case, for at least the reason that there is no limitation directed towards a receiver that can receive the electromagnetic data signal and transform it into signals on a computer bus for example, which are then written to memory or cause a processor to under a change of state. Therefore no physical transformation or useful, concrete or tangible result is produced by the claimed invention.

6. Claims 8 and 9 are rejected under 35 U.S.C. 101 because the claim is directed to both an apparatus, and a method step for using the apparatus. Such a combination of statutory classes of invention is in itself non-statutory. See MPEP Sec. 2173.05:

II. PRODUCT AND PROCESS IN THE SAME CLAIM

A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. In *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990), a claim directed to an automatic transmission workstand and the method steps of using it was held to be ambiguous and properly rejected under 35 U.S.C. 112, second paragraph.

Such claims should also be rejected under 35 U.S.C. 101 based on the theory that the claim is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* at 1551.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more Claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Claims are directed towards more than one statutory class of invention and therefore, as discussed supra, are indefinite.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 8, 9, 11, and 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nachenberg (US 5,826,013).

As for Claim 8, the Claim is directed towards a program storage device readable by a machine. As such, the claim is not further limited by the additionally recited limitations directed towards method steps for the intended use of any computer program stored in the program storage device. Nachenberg does teach a program storage device readable by a machine (col. 3 lines 1-24: where the PAM carries out the indicated operations, and emulates an executable, such a storage device is inherent).

As for Claims 9, the Claim is directed towards a computer system comprising a processor and program storage device readable by a machine. As such, the claim is not further limited by the additionally recited limitations directed towards method steps for the intended use of any computer program stored in the program storage device. Nachenberg does teach a program storage device readable by a machine (col. 3 lines 1-24: where the PAM carries out the indicated operations, and emulates an executable, such a storage device is inherent).

As for Claim 11, Nachenberg teaches an apparatus for detecting a computer virus (abstract) comprising: An emulator component operable to emulate computer code

in a subject file (col. 6 lines 45-48), and a detector component operable to detect at least one modification to a memory state of a computer system, wherein the at least one modification is caused by the emulation of the computer executable code (col. 6 line 54 through col. 7 line 8, col. 12 line 64 through col. 13 line 10), and comprises installation of a viral exception handler or a viral interrupt handler (col. 8 lines 25-67, col. 9 lines 24-32).

As for claim 12, Nachenberg teaches a detector that monitors a system memory (col. 4 lines 25-29).

Allowable Subject Matter

11. Claims 1-3, 5-7, 20, and 21 are allowed.

12. Claims 13-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening Claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

As for claim 1, the closest prior art in the field, Nachenberg, fails to teach the combination of features of the claimed invention, particularly including detecting a

Art Unit: 2137

modification of a memory state of a computer that is caused by emulation of computer executable code, and comprises insertion of a pointer to a viral exception handler where the pointer is associated with a particular exception. Claims 20 and 21 are dependent from Claim 1 and are thereby allowable on that basis.

As for claim 5; the novel and unique feature is detection of a modification to a memory state of a computer, where the memory state comprises a particular interrupt associated with a legitimate interrupt handler, the modification is caused by emulation of the executable, and the modification comprises installation of a viral interrupt handler.

As for claim 13, the novel and unique feature is detection of an instruction that forces a particular exception associated with the viral exception handler. Claims 14 and 15 are dependent on Claim 13 and are thereby indicated as containing allowable subject matter on that basis.

As for claim 16, the novel and unique feature is detection of an instruction that forces a particular interrupt associated with the viral interrupt handler. Claims 17-19 are dependent on Claim 16 and are thereby indicated as containing allowable subject matter on that basis.

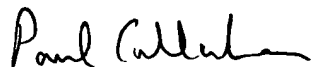
Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul E. Callahan whose telephone number is (571) 272-3869. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Emmanuel Moise, can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is: (571) 273-8300.

6-22-06

Paul Callahan

A handwritten signature in black ink that reads "Paul Callahan". The signature is written in a cursive, flowing style.